

Microfinance and Women's Micro-enterprises: Assessing the Impacts of Microfinance on Business Performance and Standard of Living

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This study attempts to investigate the impact of microcredit program on its clients' business performance and standard of living. A survey would be conducted on the sample, which purposely be extracted from a microfinance institution's female clients who own and run micro enterprises in Surabaya-Indonesia, to provide sufficient data of selected standard of living indicators. By analyzing the data using both quantitative and qualitative research methods, the study concludes that most of the indicators have significantly changed after the clients received the credit. It also reveals that the microcredit distributed by microfinance institutions apparently gives a positive impact on the clients' standard of living. In the case of business performance, it seems that the microcredit could not greatly improve clients' business performance. These results could be an indication that the credit has not been solely used for expanding their business, but mostly for other purposes.

Keywords : microfinance, micro enterprises, business performance, standard of living

1. Background

Microfinance has been a standard element for poverty alleviation and enhanced the social and economic wellbeing of its recipients in many Third World countries (Nader,2008). It addresses the constraints faced by microenterprises or the poor due to an imperfect financial market. Microfinance institutions (MFIs) provide a range of services, including credit, saving, insurance, and community development (Elahi and Rahman, 2006). Through its microcredit program, a MFI can then allow its clients/borrowers to increase their productivity and business performance with relatively easier credit

schemes. Their programs have alternatives to collateral for loans (such as group lending and peer monitoring), actively promote savings, and provide a safe low cost haven for savings. (Gertler, Levine and Moretti, 2009). Moreover, the roles of microfinance on individual and household has been studied and showed a list of impacts not only on clients' business performance, but also on several other variables, such as income, expenditure, nutrition/food intake, house condition, assets, literacy and education, health, access to health services, access to public resources, and many more (Zohir and Matin, 2004). Microfinance sector is made of a large variety of institutions, programs, services, clients, and target groups, which are also subject to various legal, regulatory, and supervisory frameworks in Indonesia (Holloh, 2001). A large number of programs and projects for poverty reduction with a microfinance component have been being conducted under various departments (Charitonenko & Afwan, 2003). However, in general, MFIs in Indonesia provide small-scale loans (consumption and investment loans) to low-income borrowers who are not the poorest of the poor. (Hamada, 2010)

Even though capital availability is important to the survival and growth of firms (Cooper et al., 1988, Holtz-Eakin et al., 1994, Bates, 1995, and Demirgüç-Kunt et al., 2008), in some countries, providing microcredits to the poor however tends to reduce the poor's vulnerability by smoothing consumption and the ability to start and invest in a business, but had no impact on poverty indicator (Morduch, 1998 and Banerjee et al, 2009). A recent study concludes that microcredit (capital) availability will have a non significant relationship with business performance (Bradley et al, 2011). In the case of poorest with the fewest skills, the clients often have difficulty make loan payment (Karnani, 2007). These findings likely confirm that the effectiveness of microfinance

program is still debatable and more evidence is needed (Morduch, 1999) for poverty alleviation (Karnani, 2007)

Based on the facts above, microfinance programs, which set microcredit as its core program, apparently do not always become effective instruments to reach their main objectives to improve business performance of their clients. This study is conducted with a purpose of examining the impact of microfinance program on the business performance and standard of living of women entrepreneurs who receive loans from a MFI. Women are specifically chosen because they are very vulnerable to economic changes and they lack of the necessary resources to adapt to such changes, as well as they tend to invest largely in their families' needs. Thus, the research question would be does microcredit, as a main product of microfinance institutions, have impacts on both clients' business performance and standard of living in Surabaya Indonesia?

2. Literature Review

Previous research on the impact of microfinance program has shown positive results on income. Microcredit, a product of MFIs, help to increase household incomes which in turn, improves the consumption patterns and lifestyles of the families (Hossain & Sen, 1992; Navajas et.al., 2000). This positive impact has increased the families' assets as well as created wealth (Hulme & Mosely, 1998).

Microcredit programs also create significant influences on rural women in the area of social empowerment, awareness and education, self-esteem, sense of dignity, organizational and management skills, and mobilization of collective strengths (Pitt & Khandaker, 1996). In Bangladesh, the programs have a positive socioeconomic impact on

the country's rural-female borrowers. However, it also reveals that the programs do not help the borrowers to develop any entrepreneurial capabilities other than survival (Afrin, Sharmina., Islam and Ahmed, 2010). This confirms that the overall success of microcredit programs depends not only on immediate alleviation of poverty, but also on long-term sustainability, which relies on assets accumulation (Chowdhury (2004). These findings seemingly point out that microcredits would not guarantee that all recipients would be success in expanding their business. The Double Hurdle model explains that the 'size of land owned' plays a crucial role in whether the household has access to a loan or not (Swain, 2007).

Even though some countries experience that microfinance become a powerful instrument to handle some economic problems, in some other countries the instrument does not really work. In Egypt, microfinance programs have only little impact. Both quantitative analyses of the microcredit recipients' answers as well as interviews with some experts showed that the impact was small and that the strategy followed by some programs, which offer microcredit, resembles those of the subsidies system targeting survival only, without helping in substantially transforming recipients' lives. This was particularly due to the small amount of credit offered and the lack of recipients' skills needed to engage in highly profit making activities (Nader, 2008)

Despite all positive impacts, microfinance often suffers form default risks. Capital from microcredit loans in developing economies is characterized by minimal loan screening by the lender and a lack of physical collateral. This is due to that the lenders reduce transaction costs of small loans by relying on lending groups to select their own members and to monitor and collect delinquent payments (De Aghion and Morduch,

2005). Instead, screening is more often based on the trustworthiness of the individual and the number of ties to other group members (De Aghion and Morduch, 2005). Some previous research also point out that governments are unable to enforce the loans repayment due to political matters, and that the relatively wealthy and powerful individuals, rather than the poor, received most of the loans (Adams, Graham, & von Pischke, 1984; Adams & Vogel, 1986; World Development Report, 1989). As cited by Coleman (2006)

Afrane (2002) on his study on the impact result of the two microfinance interventions in Africa, found that several business indicators emerged as the domain with the highest impact. As business performance can be measured in many ways, financial performance has always become important measurement as it shows firm's growths or slow-downs. Venkatraman and Ramanujam (1986) explain that financial performance represents the narrowest conceptualization of firm performance and is measured through an examination of financial indicators, where operational performance consists of those key parameters which may lead to an improvement in financial performance. As cited in Schayek and Dvir (2009)

There are two different approaches in measuring the impact of the microcredit offering: the "Institutionist" approach highlights the practical/institutional aspects of the offer, namely the financial sustainability and outreach of microcredit programs and the "Welfarist" approach on the other hand that focuses on improvements realized by microcredit on the recipients' wellbeing (Chaves and Gonzalez-Vega, 1996; Buckley, 1997) as cited by Nader (2008)

The concept of the standard of living has in recent decades increasingly approached the economists' idea of utility function, in which well-being depends on a wide variety of pecuniary and non pecuniary circumstances. Early in the post World War 2 period, the standard of living was typically conceived in purely material terms-the goods and services at one's disposal (Easterlin,2000) Standard of living will then refers to material goods and services necessary for fulfilling the needs of individuals such as food, home, health and education services.

RESEARCH METHODOLOGY

A conclusive research design is conducted on this study. The data are gathered from the respondents, members of MFI who have and run their own micro enterprises by using a set of questionnaires, especially developed to deal with the study objectives. All of the chosen respondents must be female, reside in Surabaya, and become borrowers/clients of MFI.

As it is common in most micro enterprises, sufficient data on operational activities and business performance are rarely well recorded in most of the enterprises. This makes the data collection process become somewhat difficult. Therefore, in this study, the clients' business performance would be proxy by their sales and profit achievements since some micro enterprises still keep those figures. The respondents would then be classified into three groups based on their sales and profit achievements after their involvement in MFI. These groups would be named as 'increase', 'about the same', and 'decrease'. A respondent, for instance, would be included in 'increase' group if she experience an increase in her sales or her profit after becoming a member of MFI.

Extensive works on cross tabulation analyses would be performed to describe each group's characters. Following the analyses, Multiple Discriminant Analyses (MDA) would also be conducted to reveal which factors [amount of loan outstanding (LOAN), the length of membership period (LMP), level of education (EDU), and number of hours per week spent for the business (HOUR)] significantly discriminate the criterions. Thus, there are two models of MDA examined in this study, which are the three groups based on sales achievement category discriminant analysis and another the three groups based on profit achievement category discriminant analysis. The both models will include the same predictors (i.e. LOAN, LMP, EDU, and HOUR).

A comparative study would also be conducted on the data of the respondents' standard of living (SoL) to examine whether the living condition are changed by their involvement in MFI. Using longitudinal design, we would compare the SoL indicators in the period of pre-membership and the period after, using non-parametric two related sample tests.

Several standard of living indicators, mostly based on those of the World Banks and Bradshaws (2007), included in this study are, such as

1. Nutrition, which are frequency of meal consumed per day, frequency of meat consumed per week.
2. Shelter, including house ownership, house materials and floor materials.
3. Education, which are level of education, school location.
4. Accessibility to several facilities or infrastructures such as medical care , electricity, clean water, telecommunication (telephone), and transportation (motor-cycle ownership)

At first, we questioned more than 200 respondents as the research samples. However, after doing some carefully data screening, we finally come out with only 157 respondents.

RESULTS AND DISCUSSION

The data are taken from 157 women who are the microenterprises owners and have received microcredits. Their age ranging from 30 to 75. Majority of the respondents are senior high school graduate, and only 35.8 % attended higher education. Respondent with family background who are also entrepreneurs dominate with 65,6% from total. Almost half (42,6%) of respondents have prior working experiences that related to the business.

Most of the business run by respondents is in the development stage. 18 business or 11,5% are start ups and very few business (11) are business that run since 30 years ago. This show that business that receive micro loan are just like any other small business that have to struggle with the issue of survival. The amount of loan received by respondents is 11.4 million rupiahs on average. Majority of respondents receive 6 - 15 million rupiahs. Less than one percent of the respondents receive more than 20 million rupiahs. Figure 3 shows that most respondents have built a long term relationship with microfinance institution. Only 20% of respondents have started taking loans since 5 years ago, while the rest have been receiving loans for the longer period.

Table 1. shows result of comparative testing analyses performed to test of whether there are significant differences in clients' standard of living indicators in the period of before receiving the loans (being a MFI member) compared to those after.

Table 1. Impacts on Standard of Living

Standard of living indicators	Prior	After	Wilcoxon Test (Sig.)
Meal frequency	2.82	2.87	0.046
Meat frequency	1.90	1.99	0.062
Home ownership	1.34	1.17	0.002
Home material	1.24	1.12	0.009
Floor material	3.71	3.88	0.001
Children education_location	1.89	1.85	0.197
Vaccination	2.90	2.94	0.025
Health service	1.83	1.73	0.060
Clean water	1.13	1.06	0.005
Access to electricity	3.86	3.96	0.005
Motorbike ownership	0.86	0.92	0.008
Telephone ownership	3.64	3.71	0.166

Using a 10 % level of significant, the results reveal that all indicators, except children education and telephone ownership, are significantly different.. It means that being a MFI member and then receiving the loan would result in standard of living alterations

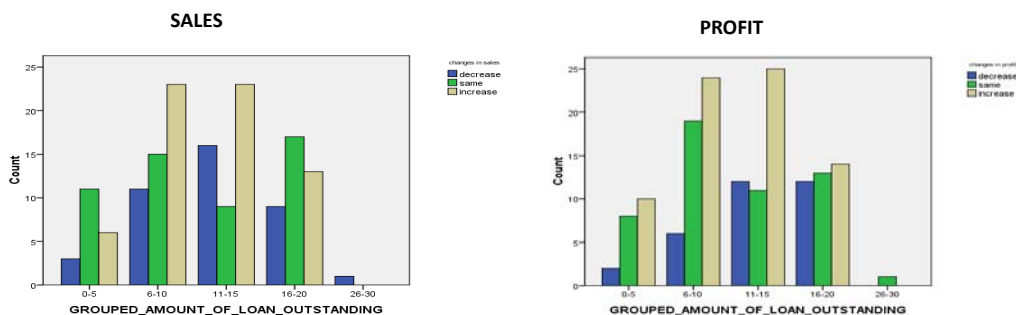
The frequency of meal consumption are both in an ideal condition (3 times daily). Meat consumption shows an increase, from two times to three times weekly. Home ownership shows improvement from 1.34 to 1.17, which means more respondent are afford to have their own house along with the title. Home material shows changes in mean value from 1.24 to 1.12 which means the house is built as a permanent building to permanent building that is still under renovation. This is similar to improvement shown

by floor material (3.71 to 3.88 mean value) which means more respondent build their floor from cement to ceramic.

Children education shows changes in mean value, from 1.89 to 1.85, means more respondents send their children from public to private school. Access for better health facility is shown from changes in mean value from 1.83 to 1.73, which means more respondents are capable to use services from private clinics from previously that are still relied from public hospital services. Vaccination improve slightly, showing more children receive vaccination.

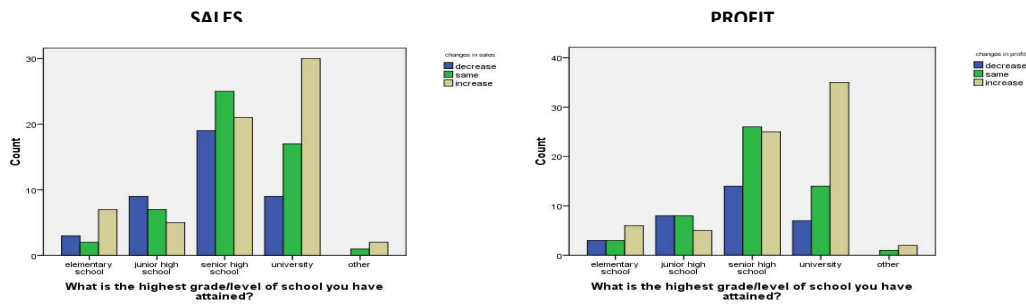
Access on utilities such as electricity and clean waters also shows significant increase in mean value. Access on transportation which is measured with motorbike ownership and access on telecommunication which is measured with telephone ownership also show improvement, indicating more respondents are afford to purchase motorbike and telephone.

Figure 1. Business Performance and Amount of Loan Outstanding



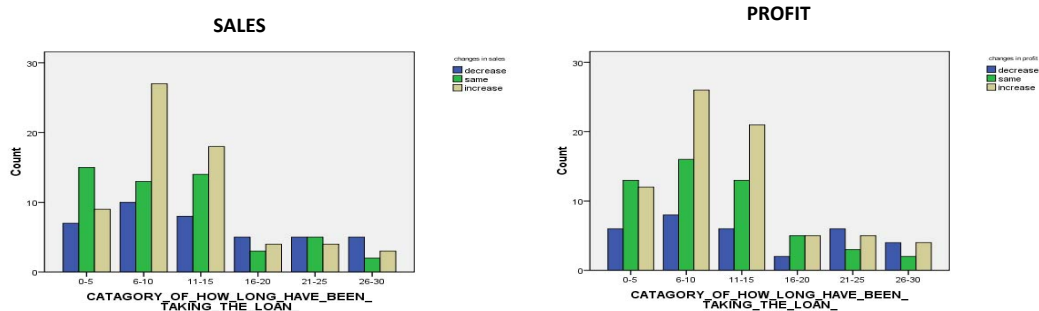
Highest percentage for increase in both sales and profit comes from business owner who receive 6 -15 million rupiahs range of loan. The range seems to be the optimum amount to boost profit and sales of the enterprises.

Figure 2. Business Performance and Education Level



Businesses that experience increase in sales and profit are dominated from business owners with higher education background. This shows that education bring advantages for entrepreneurs' ability in operating their business as confirmed by many literature.

Figure 3. Business Performance and Experience in Managing Loan



Data shows that a better ability in using loan by business owners apparently begins after 5 years experience in managing loan and reach it optimization within 10 years. After 11 years it shows decrease in performance.

When the clients' sales achievement groups become the criteria in MDA model 1, the pooled within-groups correlation matrix indicates relatively low correlations between the predictors. Multicollinearity is unlikely to be a problem.

The univariate F ratios (df 2 and 154, and 10%) indicate that LMP and HOUR are significant in differentiating between the two groups, when the variables are considered individually. Interestingly, LOAN, as representative of microcredit, does not significantly contribute to the two groups differences.

There are two discriminant functions in this first MDA. With chi square of 14.924 and 8 degree of freedom, it seems that the two functions together significantly discriminate among the three groups. The standardized discriminant function coefficients together with structured correlation (or discriminant loadings) reveal that LMP, LOAN and HOUR are associated primarily with function 1, while EDU is predominantly associated with another function.

The scattergram plot of all the groups on the both discriminant functions shows that the function 1 tends to separate the decreasing group (group 1) and the about the same group (group 2). Since this function is primarily related to LMP, LOAN and HOUR with positive correlations, it is expected that group 1 to be higher than group 2 in terms of the length of membership period (LMP), amount of loan outstanding (LOAN), and number of hours per week spent for the business (HOUR). Meanwhile, for the function 2, level of education (EDU) seems to be an important factor to discriminate the increase group and the about the same group.

Furthermore, when the clients' profit achievement groups become the criteria in MDA model 2, multicollinearity problem does not seem to occur since the pooled within-groups correlation matrix shows relatively low correlations between the predictors.

The univariate F ratios (df 2 and 154, and 10%) reveal that LMP and EDU, considered individually, are significant in differentiating between the two groups.

There are also two discriminant functions in this second MDA, and they significantly discriminate among the three groups, which are 'increase', 'about the same', and 'decrease' in profit. The standardized discriminant function coefficients together with structured correlation (or discriminant loadings) tell that EDU and HOUR are associated mainly with function 1, but LMP and LOAN are predominantly related to the other.

The scattergram plot of all the groups on the both discriminant functions show that the function 1 tends to separate the decreasing group (group 1) and the increase group (group 3). EDU has a negative correlation with the function, but HOUR has the opposite direction. Thus, it may be expected that the lower level of education, the higher possibility that profit achievement will fall into the decrease group. Meanwhile, for the function 2, LMP and LOAN likely contribute more to discriminate the increase group and the about the same group.

From the MDA's results, it is worth noting that amount of loan outstanding (LOAN), as a representative of microcredit, does not play significant roles in both clients' sales and profit achievements. This could indicate that the microcredit may postpone the necessity of discovering or creating opportunities that can generate entrepreneurial profits (Bradley et al, 2011). In contrast, the length of membership period (LMP) significantly contributes to the MDA models. It implies that non financial benefits

of being a MFI's client, such as group discussions, mentoring & training provided by the MFI, and experience in using microloans seem to give more impact on the clients' business performance (sale and profit) achievements compared to its financial benefits.

CONCLUSION:

Several conclusion may be drawn from this study are that :

1. Microcredit, indicated by amount of loan outstanding (LOAN), apparently does not significantly give direct contributions to both member/clients' sales and profit, as the business performance (BP) indicators, achievements. However, the length of membership period (LMP), is important to the BP indicators.
2. Receiving microcredits from MFI tends to make clients' standard of living indicators better off. Ten out of twelve of the observed indicators show significant alterations during the observed periods. Most of them are in improving trends.

The general conclusion of the study is that the financial benefits, which are microcredit facilities, provided through microfinance programs, have a tendency to improve the clients' standard of living, but not their business performance. It indicates that instead of using the microcredits solely for business purposes, the clients seemingly use the credits for purposes other than the business itself, such as consumption spending, to improve some of their standard of living indicators. Thus, microcredits distributed through microfinance programs does not seem to have a significant role in supporting their client's business performance, however being a member/client of a MFI and receiving its loans may create a positive impact on the recipients' well being.

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